

WHAT IS CLAIMED:

1. An intraluminal guide wire, comprising:
an elongated core having a proximal core section and a distal core section having a distal end;
5 wherein at least a section of the elongated core includes at least one of randomized and non-randomized tactile surface contours;
an uninterrupted polymer coating with a generally constant outside diameter adhering to at least a portion of the elongated core and having a surface contour that follows the at least one of randomized and non-randomized tactile surface contours
10 in the elongated core; and
a flexible tubular member disposed over the distal core section.
2. The intraluminal guide wire of claim 1, wherein the surface contours have a surface-to-peak amplitude of about 0.0002 to 0.002 inch.
3. The intraluminal guide wire of claim 1, wherein tactile surface
15 contours include at least a bump.
4. The intraluminal guide wire of claim 1, wherein tactile surface contours include at least a divot.
5. The intraluminal guide wire of claim 1, wherein tactile surface contours include at least a helical pattern.
- 20 6. The intraluminal guide wire of claim 1, wherein tactile surface contours include at least a rib.
7. The intraluminal guide wire of claim 1, wherein tactile surface contours includes a plurality of ribs spaced about 0.05 cm to 2 cm apart.

8. The intraluminal guide wire of claim 1, wherein tactile surface contours include at least an undulation.

9. The intraluminal guide wire of claim 1, wherein tactile surface contours include at least a longitudinal groove.

5 10. The intraluminal guide wire of claim 1, wherein tactile surface contours include ridges and dips.

11. The intraluminal guide wire of claim 1, wherein tactile surface contours include at least a circumferential groove.

10 12. The intraluminal guide wire of claim 1, wherein the flexible tubular member is disposed over the polymer coating.

13. The intraluminal guide wire of claim 1, wherein the polymer coating is disposed over the flexible tubular member.

15 14. The intraluminal guide wire of claim 1, wherein the proximal core section includes a high strength steel and the distal core section includes a nickel-titanium alloy.

15. The intraluminal guide wire of claim 1, wherein the polymer coating includes a fluoropolymer.

16. An intraluminal guide wire, comprising:
an elongated core having a proximal core section and a distal core section
20 including a taper transitioning to a distal end;
wherein an exterior surface of the distal core section is substantially smooth;
a polymer coating of generally uniform thickness adhering to at least a portion of the distal core section with a coating profile following a tapered profile

of the elongated core, the polymer coating having at least one of randomized and non-randomized tactile surface contours; and

a flexible tubular member disposed over the distal core section.

17. The intraluminal guide wire of claim 16, wherein the tactile surface
5 contours includes a rib.

18. The intraluminal guide wire of claim 16, wherein the tactile surface contours includes a helical pattern.

19. The intraluminal guide wire of claim 16, wherein the tactile surface contours includes a longitudinal groove.

10 20. A method for providing an intraluminal guide wire, comprising:
providing an elongated core having a proximal core section and a distal core section having a smooth exterior surface;
tapering a profile of the elongated core to transition into a distal end;
heating and extruding a polymer through a die to adhere to at least a portion
15 of the elongated core to create a polymer coating; and
imparting into the polymer coating at least one of randomized and non-randomized tactile surface contours that are formed independently from the profile of the elongated core.

21. The method of claim 20, wherein imparting into the polymer coating
20 includes localized heating of the polymer coating.

22. The method of claim 21, wherein localized heating includes laser heating.

23. The method of claim 21, wherein localized heating includes laser heating aimed at right angle to the elongated core while advancing and rotating elongated core past the laser.

24. The method of claim 21, wherein localized heating includes
5 translating the polymer coating past a heat source emitting heat in cycles.

25. The method of claim 20, wherein imparting into the polymer coating includes changing an advancement speed of the elongated core through the die.

26. The method of claim 20, wherein imparting into the polymer coating include applying impulse force to polymer.

10 27. The method of claim 20, wherein imparting into the polymer coating at least one of randomized and non-randomized tactile surface contours includes providing bumps in at least a portion of the elongated core.

28. The method of claim 27, wherein providing bumps in at least a portion of the elongated core includes drawing the elongated core through a die.

15 29. The method of claim 20, wherein imparting into the polymer coating at least one of randomized and non-randomized tactile surface contours includes particle blasting the elongated core.

30. The method of claim 20, wherein the polymer includes a fluoropolymer.